



- **3-33.** Copy and simplify the following expressions by combining like terms. Using or drawing sketches of algebra tiles may be helpful. [3-33 HW eTool](#) (CPM). [Homework Help](#) 

a. $2x + 3x + 3 + 4x^2 + 10 + x$

b. $4x + 4y^2 + y^2 + 9 + 10 + x + 3x$


c. $2x^2 + 30 + 3x^2 + 4x^2 + 14 + x$


d. $20 + 5xy + 4y^2 + 10 + y^2 + xy$


- **3-34.** Solve each equation. Show the check to prove your answer is correct. [Homework Help](#) 

a. $3x + 5 - x = x - 3$

b. $5x - (x + 1) = 5 - 2x$

- **3-35.** Fisher thinks that any two lines must have a point of intersection. Is he correct? If so, explain how you know. If not, produce a **counterexample**. That is, find two lines that do not have a point of intersection and explain how you know. [Homework Help](#) 

- **3-36.** Write and solve an equation for the following problem.
- In the last election, candidate A received twice as many votes as candidate B. Candidate C received 15,000 fewer votes than candidate B. If a total of 109,000 votes were cast, how many votes did candidate A receive? [Homework Help](#) 

- **3-37.** Evaluate the following expressions. [Homework Help](#) 

a. $10\frac{7}{9} + (-9\frac{2}{3})$

b. $-10\frac{7}{10} - 2\frac{3}{5}$

c. $(4\frac{1}{2})(-3\frac{3}{10})$

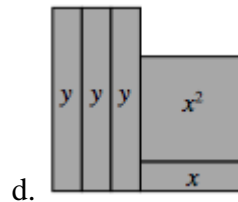
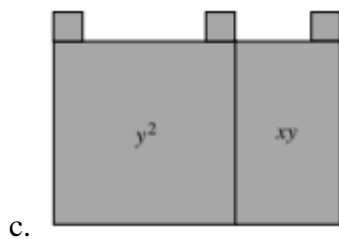
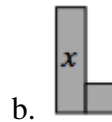
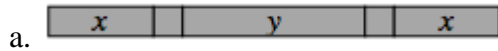
d. $-8\frac{3}{5} + 1\frac{1}{5}$

- **3-38.** Find the equation of the line based on the table. [3-38 HW eTool\(Desmos\)](#). [Homework Help](#) 

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x	2	4	6	8
y	2	3	4	5

- **3-39.** For each of the shapes formed by algebra tiles below: [Homework Help](#)
- Sketch and label the shape on your paper and write an expression that represents the perimeter.
- Simplify your perimeter expression as much as possible.
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3-41. Consider the rule $y = \frac{1}{2}x - 4$. [3-41 HW eTool](#) (Desmos). [Homework Help](#)

- Without graphing, find the x -intercept of $y = \frac{1}{2}x - 4$.
- Make a table and graph $y = \frac{1}{2}x - 4$ graph paper.
- How could you find the x -intercept of $y = \frac{1}{2}x - 4$ with your graph from part (b)? How would you find it with the table? Explain.


- **3-42.** Evaluate each expression below for a when $a = \frac{2}{3}$, if possible. [Homework Help](#) 

a. $24a$

b. $3a$

c. $\frac{a}{0}$

d. $\frac{0}{a}$

- **3-43. Multiple Choice:** What is the slope of the line that goes through the points $(-7, 10)$ and $(1, 4)$? [Homework Help](#) 

a. $\frac{3}{4}$

b. $-\frac{3}{4}$

c. 1

d. -1

- **3-44.** Simplify each expression below, if possible. [Homework Help](#) 

a. $5x(3x)$

b. $5x + 3x$

c. $6x(x)$

d. $6x + x$